MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2015 / 2016

TSD2241 – INFORMATION SYSTEMS DEVELOPMENT

(All Sections / Groups)

7th MARCH 2016
2.30pm-4.30pm
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of 7 printed pages including the cover page.
2. Attempt **ALL** questions in **SECTION A**,
   ALL questions in **SECTION B** and,
   CHOOSE ONLY ONE from **SECTION C**.
   The distribution of the marks for each question is given.
3. Please write all your answers clearly in the answer booklet provided.

SECTION A: Answer all questions (10 marks)

1) Whereas data are raw unformatted pieces or lists of words or numbers, information is _____.
   A. Data that has been organized in a form that is useful
   B. Accumulated knowledge
   C. What you put in your computer
   D. What your computer prints out for you

2) Which of the following is not an example of an information system?
   A. An accounting system in a business
   B. A concession stand
   C. A combination of different software packages in a company
   D. A database of customers

3) What method is used to effectively process customer transactions?
   A. Online Transaction Processing (OLTP)
   B. Web services
   C. Online Analytical Processing (OLAP)
   D. Data mining

4) Making the _____ is the process of building and presenting the set of arguments that show that an information system is adding value to the organization.
   A. Organizational chart
   B. Organizational case
   C. Law case
   D. Business case

5) C2C e-commerce can be categorized according to _____.
   A. The number of goods sold
   B. The number of buyers and sellers
   C. The payment methods accepted
   D. All of the above

6) _____ are those companies that operate in the traditional, physical markets and do not conduct business electronically in cyberspace.
   A. Brick and mortars
   B. Click onlys
   C. Both answer A and answer B
   D. Dot-coms

Continued...

7) What is true about knowledge management?
   A. As baby boomers retire at an increasing rate, knowledge management is helping organizations capture their knowledge.
   B. A knowledge management system is not a single technology but a collection of technology based tools.
   C. Finding the right technology to manage knowledge assets is much easier than identifying what knowledge is needed, why it is needed and who has this knowledge.
   D. All of the above are true.

8) Examples of the types of activities that can be supported by expert systems include all of the following except _____ .
   A. Payroll calculations
   B. Financial planning
   C. Machine configuration
   D. Medical diagnosis

9) A comprehensive CRM system includes all but which of the following components?
   A. Operational CRM
   B. Analytical CRM
   C. Diagnostic CRM
   D. Collaborative CRM

10) Which of the following is the correct order of phases in the SDLC?
   A. Analysis, planning, design, implementation
   B. Analysis, design, planning, implementation
   C. Planning, analysis, design, implementation
   D. Design, analysis, planning, implementation

Continued...

SECTION B: Answer all questions (30 marks)

QUESTION 1:

a) Knowledge management (KM) allows organizations to share knowledge and experience among managers and employees. One of the important areas in KM is Artificial Intelligence (AI). Artificial intelligence systems form a broad and diverse set of systems that can replicate human decision making for certain types of well-defined problems. Define each term related to AI below:

     i.   Brain Computer Interface (BCI)
     ii.   Vision system
     iii. Neural network
     iv. Inference engine

[4 marks]

b) Higher level of output for a given level of input means greater productivity. Lower level of output for a given level of input means lower productivity. Assume company A and company B produce similar products. Company A produced 600 products per month from a given 800 resources, whereas Company B produced only 350 products per month from 200 given resources. Calculate the percentage of productivity for Company A and Company B. Determine which company is with the greatest productivity and why? [4 marks]

c) Why is Information System important to an organization? [2 marks]

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QUESTION 2:

a) In an organization with Information Systems, why is valuable information important?   [2 marks]

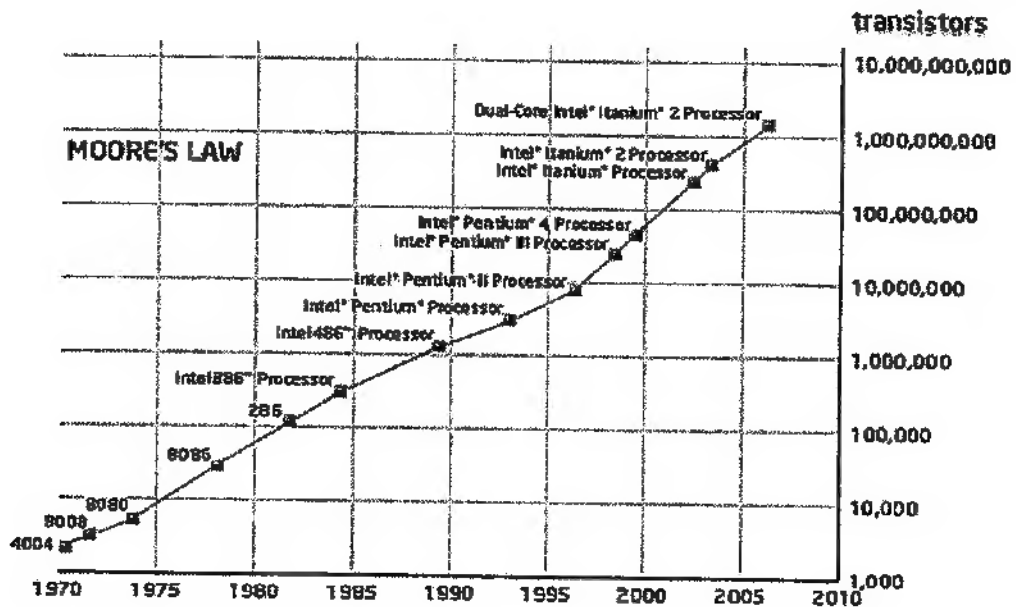b) Figure 1 below is a graph representing Moore's Law. What is Moore's Law?
       [1 mark]

Figure 1: Moore's Law

c) Input device is a device used to input general types of data and an output device is any peripheral that receives data from a computer, usually for display, projection, or physical reproduction. Give 4 examples of input devices and 4 examples of output devices.   [4 marks]

d) Cloud computing is one type of application software using computing resources, including software and data storage, on the Internet (the cloud) rather than on local computers. What are possible risks of cloud computing?   [3 marks]

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QUESTION 3:

a) As with hardware, software also can be acquired in several ways. Software can be purchased from external developers or developed in-house. This decision is often called as make-or-buy-decision. Based on your own opinion, describe what make-or-buy-decision is (hint: use commercial off-the-shelf (COTS) and Software-as-a-Service (SaaS)). In your answer, give one advantage and one disadvantage for make decision and buy decision.   [5 marks]

b) Digital subscriber line (DSL) service is a telecommunications service that delivers high-speed Internet access to homes and small businesses over the existing phone lines of the local telephone network. Differentiate Asymmetric DSL (ADSL) line and Symmetric DSL (SDSL).   [2 marks]

c) What is the biggest threat to electronic commerce and mobile commerce?
                                                                          [1 mark]

d) Group support system (GSS) is to provide effective support in group decision making and also called group decision support system or computerized collaborative work system. Draw a figure to represent this GSS based on the frequency of use and the location of the decision makers.   [2 marks]

SECTION C: Choose only ONE question (10 marks)

QUESTION 1:

Information systems usually involve Online Transactional Processing (OLTP) and Online Analytical Processing (OLAP). In general we can assume that OLTP systems provide source data to data warehouses, whereas OLAP systems help to analyze it. Figure 2 below shows a brief difference between OLTP and OLAP in a data warehouse. Based on the figure below, construct a table and differentiate OLTP and OLAP clearly based on:

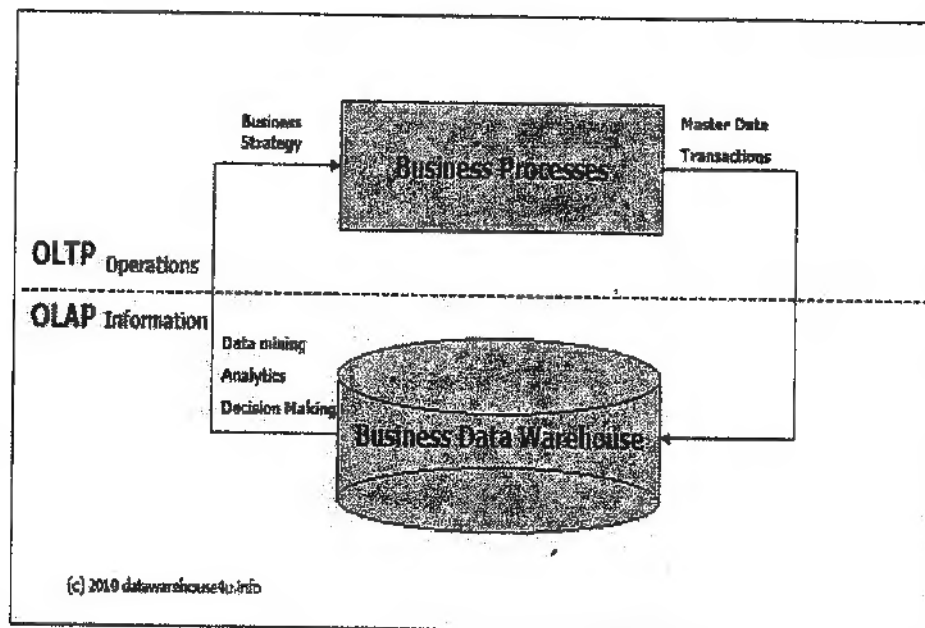|		
i.	Source of data	[2 marks]
ii.	Purpose of data	[2 marks]
iii.	Processing speed	[2 marks]
iv.	Type of data	[2 marks]
v.	Database design	[2 marks]

Figure 2: Data Warehouse

QUESTION 2:

Start-up is a process of making the final tested information system fully operational. There are 4 start-up approaches available. Draw 4 different diagrams and briefly explain those 4 start-up approaches. From your own opinion, which of these 4 approaches is the best and why?   [10 marks]

End of Paper.